100 Cambridge Street, 2nd Floor, Conference Rooms C and D, Boston, MA

DRAFT MINUTES

Members named by title present: Dan Sieger, Assistant Secretary of Environment and Chair; Judith Judson, Commissioner of Dept. of Energy Resources; Martin Suuberg, Commissioner of MassDEP; Rob Garrity, Secretary of Transportation Designee.

Members appointed or nominated for appointment present: Jennifer Rushlow, Conservation Law Foundation; Mark LeBel, Acadia Center; Gina Coplon-Newfield, Sierra Club; Jeff Hyman, EMD Serono; Jong Wai Tommee, Mass Convention Center Authority; Watson Collins, Eversource Energy; Fouad Dagher, National Grid; Scott Dube, Dube Hyundai; Robert Boch, Expressway Toyota; Kimberly Grant, Massachusetts Municipal Wholesale Electric Company; Dan Shanahan, EVSE LLC (by phone); Gus Block, Nuvera Fuel Cells, LLC; Kevin Kinnaw, Toyota; Alex Keros, General Motors; Tracy Woodard, Nissan.

Others present: Kevin Miller, ChargePoint; Will Lawler, Steve Russell, Michelle Broussard, Linda Benevides, Christine Kirby, Sejal Shah, Wayne Weikel, Karston Barde, Megan Herzog, Betsy McDonald, John Bartley, Charlie Myers, Prabhu Rao, Elizabeth Mahoney, Rachel Ackerman, Lily Oliver, Marielle Waters, Dustin Rhue, Kevin O'Brien, Peter Brennan, Daniel Gatti, Matt Minicieli, Colleen McGlynn, Karta Ran, Robert Rooophele, Pete O'Connor, Patricia Lynch, Haidee, Janak, Michelle Broussard, Nicole Appenzeller, Will Lauwers, David Garrieri, Will Nicholas. By phone (may not capture all) Jim Frankfort, Fred Wagner, Max Forsythe, Paul Young, Christina Hahn, Fred Williams, Colin Santulli, Joshua Barron, Katherine Stainken, Tom Ashby.

1. Open Meeting - Chair Sieger called the meeting to order and asked for Commission introductions

2. Old Business

a) Motion to approve second meeting minutes was made

Unanimous approval.

b) Initial Discussion

Chairperson Dan Sieger offered opening remarks. Linda Benevides gave overview of progress, request to end meeting with a schedule/plan to issue legislatively mandated action plan/ report. Participants introduced themselves.

c) Department of Energy Resources Update

Commissioner Judson provided updates and introduced Steve Russell to provide information on status of MOR-EV rebate program. Key notes – about 53% growth rate of issuance, funding will run out in September. Commissioner announced at least double the current spending will be

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allocated to extend rebate into the future and a RFP will be issued to renew the administration of the rebate (existing contract will expire). Rebate amounts and structure will remain the same.

Q: Jong Wai Tomee asked for fuel cell electric vehicle data but no cars/rebates at this time and looking into the potential of ZEV driverless cars. Response that too early to judge but it is in the near future.

Q: Marc Lebel asked why spike in June – national data shows also highest sales month, new model availability, and possible purchase/lease uptick due to change in rebate program.

Mark on the phone cited a Union of Concerned Scientists/Consumer Report study that found 85% of consumers still unaware of state incentives in the Northeast.

Given lack of knowledge of rebate and EVs is further outreach planned? Yes working on EV dealership rebate awareness through CSE as one item and dealer training/recognition program to be developed.

Other DOER updates: DOER has formed a new "Emerging Technologies Division where alternative transportation team has moved along with technologies such as energy storage and microgrid (introduced Will Lauwers), Awarded electric school bus pilot funding to evaluate use and grid interactions, \$500,000 will be spent for Fast Chargers in corridor locations. In addition to the MassDOT projects, funding was also provided to retrofit 68 vehicles with electric hybrid technology. DOER is working closely with OSD on a new contract to improve the procurement process for EVSE (municipalities use the contract), Green Communities grants will be available for charging infrastructure this includes solar canopies that incorporate charging ports. This is happening at UMass Amherst and other state facilities.

A representative, Nicole Appenzeller, from The Center for Sustainable Energy presented the State of the EV Market in MA (PowerPoint).

Q: What is status of low income pilot? Plan to launch in August 2016.

Q: Dealer training and recognition program status? Coming along slowly and will put out an RQQ (request for quick quote) soon.

Comments: Fouad Dagher offer to partner for more outreach through sponsorship of MASS DRIVE CLEAN events, doing Ride and Drive for employees next week. Given current demographics of older white males, consider how to reach more young people. Mentioned University and public Ride and Drive events this year. Jenny Rushlow asked if the demographic data is reflective of the population of the Commonwealth (need to explore)¹. Sierra Club mentioned a multi-state survey of EV purchase experience with a report that will be released

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¹ Please see table at end of minutes for compilation.

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shortly and National Drive Electric Week 2016 is coming up September 10-18. Consider registering your events at the website.

d) Massachusetts Department of Environmental Protection Update

Commissioner Suuberg updated the Commission on MassEVIP workplace charging and fleet program success. Working with other states to sustain California Advanced Clean Car rules and Zero Emission Vehicle regulations including the sunset of travel provisions (jointly signed, multi-state letter to CARB shared). Commissioner Suuberg and Christine Kirby gave an overview of the proposed Volkswagen proposed settlement: Appendix C has ZEV component with \$1.2B split among 49 states for ZEV infrastructure, brand-neutral education and programs to increase public exposure and Appendix D \$69M to MA with up to 85% to eligible diesel emission reduction projects and up to 15% for EVSE installations at workplace, public and MDU. Christine also gave an overview of the Federal Highway Corridor Designation of Alternative Fuels and Electric Vehicles. Not offering \$ at this time but offering technical expertise- working with MassDOT/DOER and TCI for corridors. Based on request, Linda Benevides sent the Federal Register notice related to this item to all after the meeting.

e) Massachusetts Department of Transportation Update

Rob Garrity updated the Commission on the status of the installation of EV Fast Chargers at 12 Service Plazas. The project will be conducted in two phases; locations on I-90 will be constructed first, and then locations off I-90. The chargers will be installed a Services Plazas in Barnstable, Blandford (Eastbound and Westbound), Bridgewater, Charlton (Eastbound and Westbound), Framingham (Westbound), Lexington (Northbound), Natick (Eastbound), Newton (Southbound), and Plymouth. MassDOT Highway will place EV signage on state highways that are located within 3 miles of exit, open to the public, open 24 hours, and have an open payment system. Level 2 chargers will be placed as several Park and Ride lots around the Commonwealth. Some of the lots will have chargers connected to solar canopies, while other will just have standard level 2 chargers.

f) EEA Update (tabled to end if time)

3. New Business

g) Preliminary MA Case Study from U.S. Department of Energy Presentation by Fred Wagner, Energetics.

PowerPoint presented. Alex Keros and Tracy Woodard commented that OEM perspective would be valuable and Linda will follow-up. Kevin Miller commented that the DPU Order is in place and allows utilities to move forward. Kevin Kinnaw responded to question about fuel cell electric vehicles, delay in permitting in northeast but Air Liquide ready to establish network of delivered liquid Hydrogen, electrolysis to produce gaseous hydrogen for fueling.

h) MA ZEV Roadmap and ZEV Commission Report Discussion

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Dan Sieger moved into a discussion about need to produce an action plan or report from the Commission to fulfill legislative obligation. Linda Benevides mentioned the Charging Up Report and draft MA Plan that was handed out at the first meeting as resource documents. One approach to developing report is to use smaller groups focused on subject areas. Areas could be infrastructure (Gina Coplon-Newfield suggested EVSE and utility area), outreach and incentives. Alex Keros suggested Linda review the third CA Roadmap - PHEV Collaborative presentation (will send link). Linda and Dan offered to possible path forward: draft a framework, send it out for review by Commission, and invite interested ZEV Commission members to participate in conference calls on agreed on topics, share draft at next ZEV Commission meeting and aim to finalize by the end of 2016. General agreement that smaller groups work well and support for moving towards an actual report.

EEA shared information about public Ride and Drive Events, please publicize. Drive Electric Cars New England will have a week-long display (August 22 through August 28) and test drives at Auburn Mall (information in package).

Meeting Adjourned: Dan Sieger adjourned meeting.

List of Documents Used by the Commission at the Meeting:

- 1. Agenda
- 2. 2016 MA ZEV Commission members and mission
- 3. Draft Minutes from Meeting 2
- 4. MOR-EV Update
- 5. State of the ZEV Market in MA, PowerPoint, Center for Sustainable Energy
- 6. Multi-state Letter signed by 6 agency heads to California Air Resources Board members.
- 7. MA PEV and Recharging Infrastructure Case Study, PowerPoint, DOE EV Everywhere Grand Challenge and Clean Cities Program
- 8. MASS DRIVE CLEAN 2016 Public Events
- 9. Drive Electric Cars New England Auburn Mall Showcase Week

Sent Subsequent to Meeting:

- 10. Federal Highway Administration "Fixing America's Surface transportation Act Designation of Alternative Fuel Corridors" Federal Register Volume 81, No. 141
- 11. Multi-state (177 state) letter to California Air Resources Board

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Prepared in response to Question about comparative characteristics of EV/PHEV Drivers responding to MOR-EV Survey:

Characteristic of MA Drivers	Detail	Rebate Survey (EV/PHEV)	2011 Travel Survey (2011 All LDV)	MA Residents (2014 Census)
Age in years	Average	52	49	39
	Median Census			
Advanced Degree	Bachelor %	89		23
	Graduate %	50	22	18
Male	%	80		48
Home	Single Family	83	78	58
Yearly HH Income	\$	\$150K - \$175K	\$136K	69K